

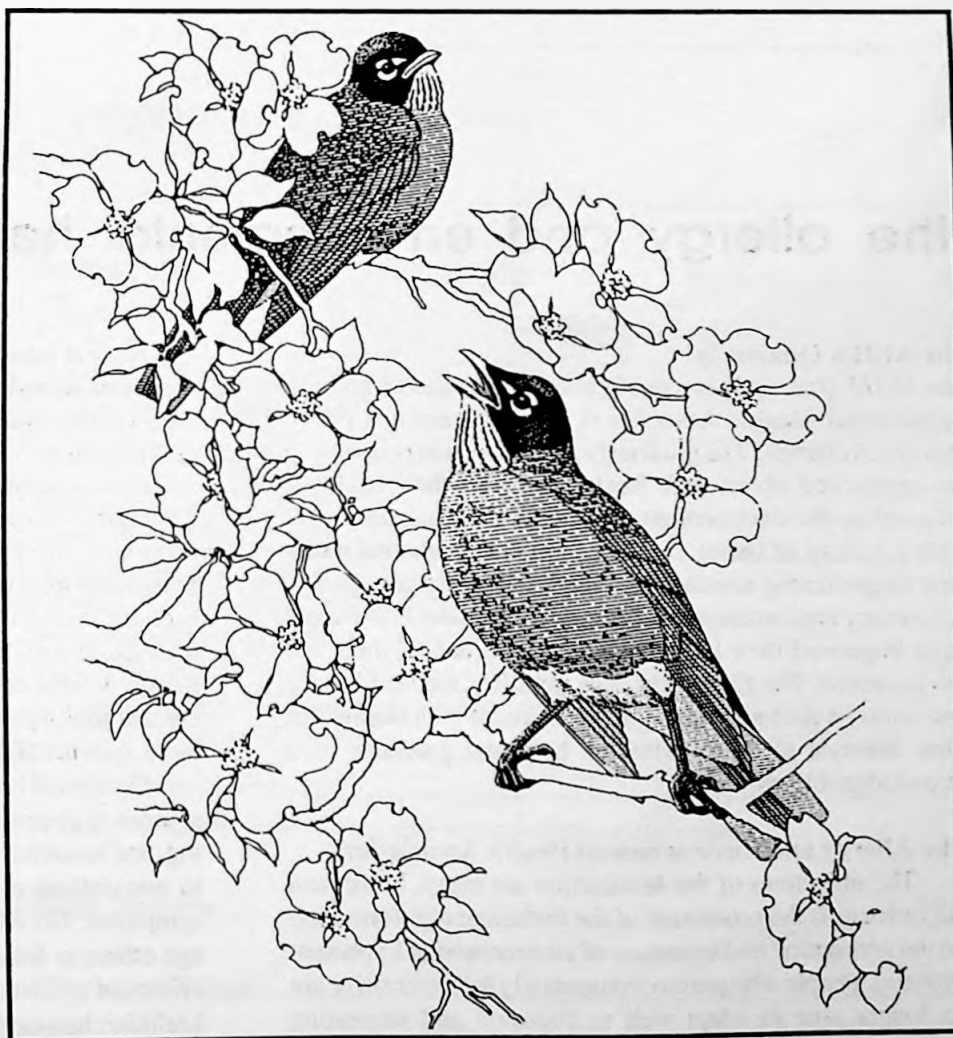


• See Back Cover for Renewals

THE ALLERGY AND ENVIRONMENTAL HEALTH ASSOCIATION

QUARTERLY

- What's New in Nutrition
- Healthy Environments for Canadians, Part 3
- Candida: The Secret Sharer
- The Ashford Report
- Natural Fibres and Nontoxic Laundering



national president's message

I urge all members, upon receipt of the petition mentioned in "Highlights from the Ontario Office", to duplicate, circulate and get involved in this worthwhile activity. If you wish to receive additional copies, phone the Provincial Office and leave a message on the machine.

I would like to thank Health and Welfare Canada for inviting Darlene Koski and me to the recent workshop on sensitivities. The sessions were positive and laid the groundwork for the long process of gaining recognition. I will try to visit the branches again this year but until then please have a healthy and pleasant summer.

Ed Lowans
President.

the allergy and environmental health association

The AEHA Quarterly

The AEHA Quarterly is a publication of the Allergy and Environmental Health Association, a volunteer, non-profit, registered charity. *The Quarterly* is of interest to people who are concerned about their health and how their health is affected by the environment. Articles in *The Quarterly* deal with a variety of issues, ranging from environmental medicine to gardening concerns for the environmentally aware. Also every issue attempts to share with the reader how people have improved their health by changes in habits, diets and environment. *The Quarterly* does not offer medical advice and we urge persons wishing to experiment with changes in their lifestyle to do so with the help and guidance of a knowledgeable physician.

The Allergy and Environmental Health Association

The objectives of the Association are many, however a major focus is the promotion of the exchange of information on the prevention and treatment of environmental hypersensitivities. People who are environmentally hypersensitive are no longer able to adapt well to common and increasing exposures in their everyday environment. They may develop a variety of chronic or acute symptoms that are brought on by substances in the air, in food, in water, or in their home and/or workplace environments.

Natural inhalants such as pollens, dust and molds, and even natural foods may begin to affect people adversely. This aspect of the condition is often referred to as "allergy" but the many synthetic chemicals that are now common around us can also cause symptoms and overexposure to them can trigger environmental hypersensitivities even in those with no history of allergy or other sensitivity to the environment. Symptoms may be mild and merely annoying, or they may become severe enough to interfere with a person's daily activities, family life, and career. The Thompson Committee Report defined environmental hypersensitivity in 1985 as "a chronic multisystem disorder involving symptoms in one or more systems of the body."

On a local basis, AEHA branches work toward finding sources of chemically less-contaminated food, water, clothing, and household furnishings, as well as providing referral to counselling on changes of lifestyle that may alleviate symptoms. The AEHA and its branches would like to encourage others to become involved not only in research on the effects of environment on health, but in working toward a healthier, less-polluted environment.

Product information mentioned in *The Quarterly*, should be evaluated for personal compatibility, since individual sensitivities vary widely. Mention of a product does not imply that AEHA endorses that product or service.

The QUARTERLY

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going forward

Ontario Branch News

Recently, individual winners have been highlighted. In this issue the winners are the volunteers who give their time, expertise and energy to the organization. Volunteers often do not receive the recognition due to them. Not so, in AEHAO - volunteers are needed, appreciated and acknowledged in a local way within the branches.

Volunteers are one of the keys to this organization. Without their help many tasks would not get done.

Volunteering is a noble profession. With it comes satisfaction, sharing, caring and a sense of pride in accomplishment. You could be a volunteer. Your help may be with clerical assistance, organizing or staffing an event, stuffing envelopes, greeting new people - telephone, meetings, or in the local newsletter or as a contributor to the Quarterly.

On a regular basis or as an occasional activity, your assistance is needed and appreciated. More hands make lighter work for all.

Be a helping hand! Extend your expertise and energy to the Allergy and Environmental Health Association. Every branch can use more help.

Provincial Government Liason's Report

The Ontario Ministry of Health formed an Advisory Committee on Environmental Sensitivity in 1989.

Presently a food research project is underway at the University of Toronto, funded by the Ministry of Health.

The committee has now announced a two-day International Workshop on Sept. 26-27, 1990, for clinicians and Researchers.

This workshop, by invitation only, will feature speakers (names to be confirmed) from various countries, for a half day. The rest of the time will allow an opportunity for discussion of research needs and determining specific researchers, appropriate to the task. Grants for the development of proposals will be available to those involved.

Disability Update

If you are applying for or have been denied Disability Pensions you should consider getting in touch with Barbara Mowat, AEHAO member of the Board of Directors, (416) 838-3395 (anytime).

Considerable advances are being made in attaining pensions with less legal intervention needed.

Barbecue

The Waterloo-Wellington Branch is holding a barbecue on July 28th at the Loeb IGA in the Highland Plaza (Corner Hwys. #8 & 97), Cambridge.

The proceeds from the event will be donated to the Provincial Office. Come out and support us.

Barbecue Time: 10 a.m. - 5 p.m.



Annual General Meeting

The Annual General Meeting of the Allergy and Environmental Health Association of Ontario was held in Cambridge, on April 21, 1990. A most productive meeting was held which resolved the confusion about prorating the membership fees and the concern about the french translation of the Association name.

Membership fees will now be due annually on the first day of the month in which you join. Reminders will be highlighted in The Quarterly. Renewal notices will be sent when necessary. Please read the back page of The Quarterly.

The french translation now reads "Association Allergies, Santé et Environnement."

Following the business meeting June Irwin M.D. spoke to a large crowd of people about the horror stories of pesticide use around the world. Copies of her speech (12 pages) are available from the office for \$3.00 including postage.

Health & Welfare Workshop

Ed Lowans and Darlene Koski attended the "Focus on Allergies & Environmental Sensitivities" workshop in Ottawa on May 24, 1990, sponsored by Health and Welfare Canada. The attendees were from a wide array of backgrounds providing varying views as to the nature of research format, interim measures and priorities. There was no doubt that environmental sensitivities exist, however the concern about treatment is still most relevant in many minds. Full proceedings will be published and made available to the public. AEHA will keep you informed.

Keep Us Informed!

By keeping us informed, we can keep you informed. Please contact us to renew your membership, report address changes, enroll new members, or report a missing *Quarterly*. Call or write to us at the office.

Indoor Air '90

The 5th International Conference on Indoor Air Quality and Climate is being held, July 29 to August 3 at the Metro Convention Centre.

Over 1500 delegates are expected to attend Indoor Air '90 which provides a setting for the exchange of current scientific, technical and standard information and will attract the world's leading experts.

The conference program is aimed at the scientific and technical community, not at 'the man on the street', although the exhibition hall (capacity 5000) is open to the public July 31 and August 1, 1990.

Increasing evidence of the health effects of mould and long term exposure to low levels of pollutants suggests that improvements to residential air quality may represent one of the most effective ways of improving the health of the general population and of reducing health care costs.

Canada Mortgage and Housing Corporation is co-sponsoring an evening "Public Forum" with Indoor Air '90 to raise the awareness of the importance of Indoor Air Quality among the public and the media.

The format for the forum will be arranged by CMHC and Indoor Air '90 and includes an address by the Minister of Housing, the presentation of several case studies (typical problems and solutions) plus a panel of experts to answer questions. Supporting brochures and information kits on Indoor Air Quality will also be available.

The public forum will be held in the theatre at the Metro Toronto Convention Centre on Tuesday, July 31, 1990 from 7:00 - 9:30 p.m.

The Allergy and Environmental Health Association will be one of the

highlights from the Ontario office

groups assisting CMHC in their efforts.

AEHAO will have a booth at the conference on July 31. Volunteers are needed to staff the booth in the evening 6:00 - 10:00 p.m.

GET INVOLVED!

MAKE A DIFFERENCE!

MEET OTHERS!

Contact the office in Cambridge or at the Toronto branch to volunteer.

Petition

A petition is being circulated among the members and friends of the Allergy and Environmental Health Association. This petition was prepared by Mr. & Mrs. Allen, whose daughter died from anaphylaxis in March, 1990. Neither Robyn nor her parents, knew that Robyn's allergy to peanut could be fatal, nor was an "action plan" such as an emergency kit, ever discussed with them.

It is intended that the petition be presented in September when parliament resumes for the fall sessions. Please help us to help others to increase the awareness of the seriousness of this problem.

Ready For Fall

The next *Quarterly* will be coming out at the end of September. Do you have stories, tips, or concerns that we could share with our membership? Why not trade your expertise and submit something to *The Quarterly*? We need to hear from you by August 15th, 1990.

AEHA Branch Manual

The Allergy and Environmental Health Association's Branch Manual has been reviewed by the Branch Reps and should be ready for distribution at the 1990 Annual General Meeting. The Manual includes material on the background of the Association, how to start up a new branch, the responsibilities of having an AEHA branch, how to run a good meeting, a list of suggested activities, important financial guidelines and other useful information.

We are ready, willing and able to give assistance to new branches. It only takes five people to start a branch. Might you be one of those five? Call us for details!

Pen-Pals

Just a reminder that we have started to develop a pen-pal network. Please write to the Cambridge office and indicate your willingness to have your name and address put on to a pen-pal list. Also, we are still looking for a volunteer to co-ordinate the pen-pal network.

Material Available

The AEHAO has a brochure series called *Working Together For a Healthier Environment*. Brochures currently available are *Molds and Fungi* and *Parents and Teacher*. We also have a general brochure on the work of the Association. Both your local branch and the AEHAO office have copies of these brochures.

Our Quarterly

AEHA's March issue used recycled paper and soy-based ink. We heard from our members who are sensitive to soy. Due to the response from the members and further investigation about recycled paper, the board has decided to cease this practice.

This quarterly will be produced with the least offensive materials in consideration of the special needs of the membership.

Recycling saves trees but the chemical content of recycled paper does not help the members of the AEHA. Thanks for your input.

Speedy Recovery

Kathy Sage Hayes, AEHA Quarterly Editor has been sidelined for a short while due to illness. The members wish you a speedy recovery, Kathy.

A Special Thanks

Brian Butcher at Adverttech Promotional Designs has stepped in as our lifesaver for this issue. Many thanks for your expertise, caring and time in producing this issue of the *Quarterly*. You are a gem!



The AEHAO office is downsizing for the summer months, due to a lack of funding. Russelle Madigan, a bookkeeper will remain on staff one day a week to maintain the membership list, financial books and reporting to branches. Messages can be left on the machine for response from volunteers.

Please direct information or supply requests to: The Allergy and Environmental Health Association of Ontario, 10 George St., N. Cambridge, Ont. N1S 2M7.

crosstalk

The Road To Recovery

It takes courage to adopt a positive mental attitude when you are in pain and feeling ill. It would be so much easier to just give in to the illness and crawl into a hole and cover our heads. There are days when we'd all like to do this, but we can't...

We all participate in our health or illness at all times. Those of us with a serious illness can participate in getting well again. Most of us assume that healing is something done to us, that if we have a medical problem our responsibility is simply to get to a physician who will heal us. With Environmental Illness we must learn to travel our own road to wellness with the help of a doctor who can guide us along the way, but the major job is ours.

We all participate in our own health through our beliefs, our feelings, and our attitudes towards life, as well as in more direct ways, such as through exercise and diet. In addition, our response to medical treatment is influenced by our beliefs about the effectiveness of the treatment and by the confidence we have in the medical team.

Understanding how much you can participate in your health or illness is a significant first step for everyone in getting well. For many patients it is the critically important step. It may well be for you too!

Pam Beadle

Coping With New Materials

I recently moved to an apartment in an old house which required painting, and the living room carpet was old, musty, with cigarette burns and obviously needed replacing. Having reacted toxically to formaldehyde (I get a sore throat shopping for clothes due to the formaldehyde finish on them), this put great fear as to how I would survive a new carpet, and new paint.

For the paint the solution was baking soda. After the carpet was first unrolled the fumes were so bad I had to leave the area. Later I returned donning my mask, and sprinkled an entire box of baking soda (through a sieve) over the entire 16' by 10' area. I left it overnight and vacuumed it up next day. I then repeated the process several days in a row. In less than a week, the fumes went from toxic to bearable.

In discussing this with other environmentally sensitive people (at testing sessions in my clinical ecologist's office which I find are great sources of information), someone had purchased a new car and dealt with it in a similar fashion. Baking soda was used on the rugs and upholstery and windows were left down to air for a week to air out the fumes from the vinyl dashboard.

I was also able to paint the apartment myself using a mask (a plastic bug imitator with two filters) and a latex paint and low alkyd (low oil), low fumes glossy paint for trim by Benjamin Moore. It was more expensive, however I was able to paint the room myself and latex paint has so little fumes I could have done it without the mask. It was also easier to handle the week after it was painted when we moved in. Hopefully this can be of help to some of you and if you come across such potential problems, ask your tester or clinical ecologist for assistance ahead of time.

Barb Loma

(AEHA cautions chemically sensitive persons about doing the painting themselves.)

Healthy Environments for Canadians

Making The Vision A Reality (Part Three)

by Bruce Small

Political and Social Considerations

Enough new knowledge has been accumulated over the last few years on the connection between environmental factors and ill health to increase the pressure on all players to provide or promote healthier environments in Canada. Not only the politicians and governments are feeling it, but also employers, physicians, health care institutions and organizations of various other kinds.

Our review of the literature in this area suggests that there are a number of political and social issues that need to be taken in consideration.

For one thing, if we are to achieve "Health for All," government has to play an active role in seeking the complete elimination of the various kinds of prejudice and victimization that prevail in Canada. These include:

- sexism (oppression of women by men);
- ageism (devaluing of elderly people by younger people);
- adultism (devaluing of younger people by adults);
- racism (devaluing of one race or ethnic origin by another);
- prejudice against one religion by another;
- gay oppression (prejudice on the basis of sexual orientation);
- devaluing of people who are unemployed;
- devaluing of people in less advantaged economic positions;
- devaluing of people who are handicapped; and
- devaluing of people who are physically or mentally ill.

Secondly, before healthy environments can be achieved in Canada, each person must gain greater control over his or her own surroundings and lifestyle. This has implications for many areas of policy and planning; for example, building design, housing, income distribution, employment policy, income alternatives, human rights, health systems, and pollution standards. The vision is one of environmental choices in recognition of the vast diversity of human characteristics and situations to be found in Canada. The freedom to choose leads, in turn, to greater individual empowerment, increased diversity and, ultimately, to a healthier and more effective population in Canada.

For such a vision to become reality, however, widespread change will be required. In many ways, Canadian society has been paralysed from top to bottom with a kind of hopelessness that says certain things can never be changed. In pollution control, in environmental design, in health care, and in social programs, the focus has been on meeting standards which accommodate the bulk of the population, the hidden assumption being that we cannot accommodate everyone. "Health for All" contradicts this notion and suggests that we need flexible, clever designs in our physical environments and in our social structures, designs that will accommodate everyone's needs, and accommodate them well.

The literature does not reveal any real barriers to achieving this. It does suggest, however, that the creation of healthy environments for everyone will require not only physical

changes, but also legislative, structural, and attitudinal change throughout our society's major institutions.

Environments will be healthier when those who are affected by them participate in their design and in their continual maintenance and development. This applies as much to the design of legislative and social programs as it does to the physical design of buildings and public places. Many methods that facilitate user participation have already been developed; all that is needed is to select and apply them appropriately.

A new focus on making Canadian environments healthier will lead inevitably to economic spin-offs and to the development of "exportable expertise" in both products and services. Becoming a world leader in the design and production of safe, non-polluting products and supportive, health-enhancing environments would be consistent with Canada's world image as clean, healthy and peaceful country.

The Next Steps

A commitment to ensuring that healthy environments are available to everyone in Canada requires action in the following four major areas:

- political vision and leadership;
- scientific and social research and incentives to industry;
- public education; and
- legislation.

First, a new public stance is needed, at the highest level, to provide leadership in bringing about healthy environments, and to promote and share the following ideas:

- environment is important in the health of Canadians;
- diversity is welcomed and valued in Canada;
- individual Canadians should control their own environments;
- prejudice and discriminatory behaviour will not be entertained in Canada;
- Canada can be a world leader in environmental health.

Secondly, we need to develop and support technologies and methodologies that enable us to understand more thoroughly the effects of the physical and social environments on people's health. Industries need to be aware that Canadians want and demand cleaner, less damaging and less risky products and materials. They may require some research support as well as assistance in promoting clean, safe Canadian products in the markets of the world.

Thirdly, we need wider and more detailed public education about the effects of environment on health, and about the ways in which healthy environments can be created for everyone. Canadians also need to grasp that there is a wide range of vulnerability to environmental stressors within our population. It is important that the differences between us not be used as a basis for prejudice by people in one part of that range towards people in the other.

Finally, it is vital that existing legislative powers be

reviewed so that we can determine whether the degree of control Canadians have over their own personal environments is adequate. We need health and safety legislation at the appropriate government level for settings (e.g., schools) and groups (e.g., tenants) that have hitherto gone largely neglected. Existing legislation, regulations, and institutions need to be reviewed to ensure that they do not inadvertently devalue or restrict the opportunities of any one group in Canada. This should be done with participation by those affected. As a start, there should be a complete re-examination of the ways in which sexism is institutionalized with a view to accelerating the timetable for the achievement of full equality by Canada's women.

Conclusion

To sum up. The knowledge that physical and social environments have an important affect on the health and well-being of Canadians has not been widely applied in Canada, whether in the health care delivery systems, in the design of other social programs and institutions, or in the design of physical settings.

If healthy environments are to be achieved for all Canadians, we must:

- value each person, regardless of age, gender, family type, race, culture, illness, sexual orientation or lifestyle;
- ensure that our common environments are accessible to everyone, and that our specialized environments are not only physically accessible, but psychologically and socially healthy as well; and,
- ensure that those who will be affected by any physical setting, social program or institution participate in its design.

In order to design healthier environments we need to intensify research into and development of emerging technologies that will enable us to obtain detailed, quantified information on the health effects of different environments. We also need to educate the public about the effects of environment on health, and on the means of creating healthy environments; to review existing institutions, legislative and other, to determine how much control individuals in Canada currently have over their environments; and to ensure that there are no restrictions, whether inadvertent or otherwise, on the opportunities of any group in this country.

BRUCE M. SMALL, P. ENG

is the founder and Director of Small and Associates of Goodwood, Ontario. He prepared this article in collaboration with his wife and colleague, Barbara J. Small, and Wendy Priesnitz of Wendy Priesnitz and Associates. Correspondence with the author may be directed to Sunnyhill Research Centre, RR #1, Goodwood, Ontario L0C 1A0, (416) 294-3531.

Candida: The Secret Sharer

By Steve Rowat

In February of 1987 at the end of a ten-year decline my health was so bad that I was considering suicide. Six months later I described the situation by saying that if suicide had been a switch on the wall beside my bed I would have pulled it, except that I didn't have the strength to raise my hand.

Although yeast overgrowth as oral and vaginal thrush was first described 2,000 years ago, *Candida Albicans*, the most successful human parasite, a fungus that lives in the digestive systems of virtually all of us, was about the farthest thing from my mind. I had reached a point where I was allergic to most common foods, had lost 20% of my body weight, and had symptoms of constipation, skin itching, rashes, lip pain and cracking, sore tongue, elevated heart-rate, crippling fatigue, stomach and intestinal pain, and gas-to name only some. As well I reacted allergically to pesticides, chemicals, paints, and other petroleum-derivates (including natural gas, oil and gasoline) with headaches, nausea, shortness of breath, cold extremities, deranged thought patterns, and the feeling that there was a razor blade inside my head.

At this point I had good luck: my story was told to someone who named my predicament: "ecological illness" I joined the Human Ecology Foundation [now called the Allergy and Environmental Health Association], a group of hundreds of the similarly afflicted, read as much literature as I could, and began trying to cure myself, mostly by avoiding things to which I could identify myself as "sensitive."

Then I was told a peculiar fact: a recent survey of the

members had found that 46 of a sampling of 49 were treating themselves for overgrowths of *Candida Albicans*. Could this be my problem? But how could all those symptoms be caused by yeast? Especially the symptoms far from the digestive and intestinal tracts, the usual sites of yeast infection?

Connections

Dr. Sidney Baker, speaking at the Human-Yeast symposium in San Francisco in 1985, said: "When I went to medical school I was expected to pick an organ and run with it... I was led to understand that the body was made up of organs pretty much the way the chapters in the textbook were organized."

Yet we know the immune system to be so vastly complex it's considered second only to the brain in interconnectedness and memory capacity-and this may be under-rating it. And *Candida Albicans* has been described by Dr. Orion Truss, an internist who has treated more than 3,000 patients for yeast overgrowth during a period of 20-odd years, as "the most complex infectious agent yet studied." He states that so far 79 different antibodies specific to *Candida* have been identified, meaning that at least 79 different substances released by *Candida* are considered harmful by the immune system.

Not only that, *Candida* has been battling with our immune system for thousands of years-perhaps millions. There are many different strains of *Candida* organisms, but

probably the most predominant is *Candida Albicans* and it has the capacity to evolve new characteristics, so it's no surprise that some of its excretions appear to be harmful.

"It feathers its own nest," said Dr. Alan Levin, at the San Francisco seminar. "It secretes material that suppresses the immune system or that keeps the immune system from getting rid of it. It's a very efficient bug ... - It's kind of like civil servants."

But this is only one effect-perhaps accounting for only a few of the 79 different antigens. What about the others?

The Clinical Symptoms of Candida

"The most striking characteristic of the clinical picture of chronic candidiasis," says Truss, "is its complexity." The medical literature concerning *Candida Albicans* is vast; the listing of symptoms-especially if taken from several sources-seemingly endless. Dr. Dennis Remington and Barbara Higa, in *Back to Health: Yeast Control* list two hundred and seventy references following a single thirty-page chapter; virtually all of these are medical studies, reports, or articles about yeast infection. The symptoms Remington & Higa list include:

Gastrointestinal tract: Sores in the mouth and a sore tongue; canker sores; heartburn; nausea, indigestion and epigastric distress; gastritis and peptic ulcers; diarrhea; constipation or alternating constipation and diarrhea; anorectal itching.

Respiratory System: Nasal congestion on a year-round basis; sinus pressure and headaches; asthma; a smothering feeling; hyperventilation.

Cardiovascular System: Pounding heart, palpitations, tachycardia; mitral valve prolapse; cold sweaty hands and feet.

Genitourinary symptoms: Vulvovaginitis and penile candidiasis; irritable bladder, urinary tract infections, dysmenorrhea.

Musculoskeletal: Muscle soreness, tenderness, aching, stiffness, weakness, cramping and easy fatigability; in the muscles of the upper back, shoulders and neck in particular.

Skin: Acne; dry skin; eczema; psoriasis.

Central Nervous System: Anxiety; insomnia; irritability, tendency to anger, fears, panic, depression, loss of interest in normally enjoyable activities. Impairment of intellectual function; trouble concentrating, trouble remembering; indecisiveness. Migraine headaches; tension or muscular contraction headaches; dizziness; vertigo, light-headedness. Incoordination; blurry vision and trouble focusing. Fatigue, weakness, lack of endurance.

Metabolic and endocrine problems: Hunger and sugar cravings; hypoglycemic symptoms (fatigue, shaking); trouble staying awake, weight gain.

Premenstrual Syndrome: Intensification of well-known PMS symptoms during the progesterone portion of the cycle.

Changes in the Immune System: Inability to fight viral, bacterial and fungal infections (including *Candida*); allergy reactions to foods or chemicals.

Truss points out that 'learning disability' and 'hyperactivity' in children can sometimes be yeast-caused intellectual impairments.

Remington and Higa say the only usefulness of this yeast in our bodies they're sure of is "they help decompose and recycle our bodies when we die. We don't want them to start doing their jobs prematurely, but ... that's exactly what it can feel like."

Predisposing Factors

But why would a candidiasis 'epidemic' happen now? Immunologist Levin has been quoted as saying that the health of one third of the U.S. population may be adversely affected by *Candida Albicans*. The following causes peculiar to our time have been identified both by Truss and other researchers:

1. **Antibiotics.** Wide-spectrum antibiotics kill the bacteria in the intestinal system which normally compete with and help limit yeast growth. And some antibiotics are thought to directly inhibit the immune system. Tetracycline, aureomycin, and others have been associated with both acute flare-ups and chronic candidiasis. We know the intestinal tract to be home to well over 500 species of microbes, the mass of which weighs up to three pounds. A wholesale slaughter of bacteria-but not yeast-in this complex web kills also the *Lactobacillus*-friendly bacteria.

When the yeast proliferate they do so in two forms, one of which burrows into the intestinal wall and even into the cells. Regaining control of the intestinal tract is not always sufficient to return to 'normal;' the yeast can re-emerge in force if the immune system becomes impaired by any reason.

2. **Sugar and refined carbohydrates:** The massive change in our diet-from 10% refined and processed food at the turn of the century to 80% now-has added high doses of the yeast's favourite food: sugar. Humans have separate enzymes to digest fat, carbohydrates (sugars,) and proteins; *Candida* has only those for carbohydrates. And most strains digest simple (and refined) sugars best.

3. **Birth Control Pills:** Vaginitis and other symptoms associated with yeast are known to appear more frequently during the progesterone part of the menstrual cycle, as well as during pregnancy and the use of birth control pills, both of which raise progesterone levels.

4. **Cortisone:** This and related drugs suppress the immune system; yeast overgrowths have been associated with their use.

5. **Deficient diet:** Processed and 'chemically grown' foods are deficient in many vitamins, minerals and essential fatty acids; this lack of nourishment leads to a weak immune system.

6. *Toxin Damage*: "We are using chemicals in our environment," says Dr. Levin, "all of which are immunomodulatory, all of which can interact with [the] DNA rearranging enzymes (among other things); in our food chain, in our antibiotics and over-the-counter prescription drugs, in construction materials, in perfumes, cosmetics and a variety of other things. -So all of these chemicals which can modulate the immune system in one or another way are now in our environment manifold times greater than in the past. Log times greater."

What Are The Mechanisms?

Dr. Baker points out that the largest interface of the human with the world is not the skin: it's the intestine. The intestine, wrinkles unfolded, is as big as a tennis court. If this organ becomes chronically compromised, riddled with yeast-over many years-a serious problem ensues: so many of the intricate biological processes of the intestine are interfered with that proper nutrition becomes impossible. The less nutrients absorbed, the weaker the intestine and the immune system; and so yeast proliferates. The more yeast, the more damage to the intestine and the immune system. A self-perpetuating cycle.

One recent theory explained by Remington & Higa has it that because of the damage to the intestinal lining, "large food particles, toxins from micro-organisms and other substances may pass through and enter the bloodstream. The body may treat these particles and chemicals like foreign invaders-and it may produce antibodies in defence."

Truss says that the food allergy stage is "the most devastating form of this illness because it leads to the patients stopping eating...they get terrified of eating. I've had patients weighing 68 pounds; they've had it a long time. And that's the stage you must prevent from ever occurring....the malnourishing is a very bad situation."

Diagnosis

The most widely accepted way of diagnosing suspected candidiasis is to try to cure it. If you can, you know you had it. Many physicians are skeptical of this, and some view patients who worry about yeast as through they are hypochondriacs or mentally unstable.

Truss describes this as "tragic misdirection to futile psychiatric therapy." He says two factors contribute to some doctors' lack of understanding of the situation. The first is that there are "three types of tests-skin tests, cultures, and antibody levels," and the value of each "rests on its ability to demonstrate evidence of a particular germs where it should not be." But simply demonstrating that *Candida* is present "accomplishes nothing...it is universally present."

The second problems is the predisposition of some medical schools and physicians to emphasize "psychosomatic" as a label when faced with a set of symptoms that

appear to have no single causal mechanism. Truss says, with characteristic bluntness, that this has allowed "us internists to pretty much eliminate the category 'I don't know'."

In the absence of reliable lab testing to indicate overgrowth, the only logical method of diagnosis is a careful review of the patient history followed by a clinical trial of treatment. Truss stresses that if yeast is in fact a problem such a trial is likely to produce noticeable improvement within the first 6 weeks. A complete cure afterwards can run from "one to three years."

Truss's Search: The Acetaldehyde Hypothesis

Although he's a clinician, circumstances have forced-and allowed-Dr. Truss to set up the non-profit Critical Illness Research foundation laboratory for candidiasis research. His several years there have produced promising evidence on a mechanism that not only includes the symptoms already discussed but allows at least the possibility of understanding another startling clinical association: *Candida* treatment has sometimes caused spectacular remission of major autoimmune diseases, such as lupus and Crohn's disease.

Candida can produce acetaldehyde as a by-product. Acetaldehyde has been extensively studied by researchers studying alcoholism; it's part of the chain of reduction of alcohol in the body. The range of interferences in normal body processes identified or surmised as created by acetaldehyde is stunning, and includes: disruption of several intestinal processes; creation of "false neurotransmitters;" impaired oxygenation of the brain; damage to red and white blood cells; distortion of the sodium-potassium concentrations inside and outside cell walls; suppression of the crucial food-processing enzyme acetyl CoA; increase in the NADH/NAD ratio.

Of CoA, Truss says: "There is possibly no single point in metabolic pathways more pivotal than acetyl CoA, nor one at which interference would have more far-reaching consequences in all organs of the body." And the NADH/NAD ratio is a key one: Truss supplies 10 reviewed abnormalities in body metabolisms that occur when the ratio is disturbed.

Added to this is the intriguing fact that acetaldehyde is very close to formaldehyde in structure, and Truss points out that "many of these [*Candida*] patients exhibit extreme intolerance to formaldehyde." Formaldehyde is widely used industrially and many of the "ecologically ill" have varying degrees of allergy to it. "A patient whose tissues already contained a significant amount of acetaldehyde," says Truss, "might well exhibit symptoms from an amount of formaldehyde that otherwise would be easily tolerated."

Truss's published study in 1984 shows correlations before and after treatment that are significant improvements in variables predictable by the acetaldehyde theory. One interesting point is that "strikingly low are certain non-essential amino acids" and certain long-chain fatty acids.

essential amino acids" and certain long-chain fatty acids. Normally we produce these ourselves, so we can't raise their level directly by supplement or diet; they will be available only by fixing the metabolic cycle; by removing the source of acetaldehyde; by removing the yeast.

Treatment

Regardless of the mechanism assumed, this is what we try to do: remove the yeast; not completely-it's too clever for that-but to a level that doesn't produce noticeable symptoms. Simultaneously we try to strengthen the immune system with appropriate diet and supplements. All of the steps below are reported to be helpful to some extent.

1. *Take yeast-killing medications: prescription and/or non-prescription.*

2. *Take Lactobacillus bacteria* (Bifidus, and to a lesser extent Acidophilus) to replace the intestinal flora. Note that stomach acids will kill the Lactobacillus: take it in warm water away from mealtimes.

3. *Avoid all the predisposing factors listed earlier:* antibiotics; sugar and refined carbohydrates; cortisone; birth control pills; toxic insults (including stress, which has been shown in mice to reduce levels of Lactobacillus in the intestine).

4. *Avoid all things to which you know you are allergic.*

5. *Learn to follow a yeast control diet* (there are many books)-especially avoid high concentrations of molds in air or food.

6. *Exercise.*

7. *Investigate appropriate nutritional supplements;* common ones are Vitamin C, Calcium and Magnesium, and certain essential fatty acids, especially those found in linseed oil and cold-water fish (omega-3 form).

Will It Work?

I'm standing at the word-processor two years and five months after the time described in the opening of the article, when I felt as close to my death as I ever wish to be. For the first two years I struggled to find and apply all of the above and much more-some of which I didn't even need to know. At first I made slow progress; a major regeneration of my health didn't come until five months ago. Since that time I have not only regained my energy and weight (and spirits) and lost some of my food allergies and my worst chemical sensitivities, I've lost some health problems that I've had all my life and didn't even know I could be rid of.

Although in retrospect they are common enough manifestations of candidiasis; anal itching and discomfort; acne

on the back; painful pimples inside the nostrils; dry and cracking skin peeling off my knuckles and heels-*the fact that I have had them as long* as I can remember made them seem a necessary part of life; and a particularly blessed gift, that they are gone.

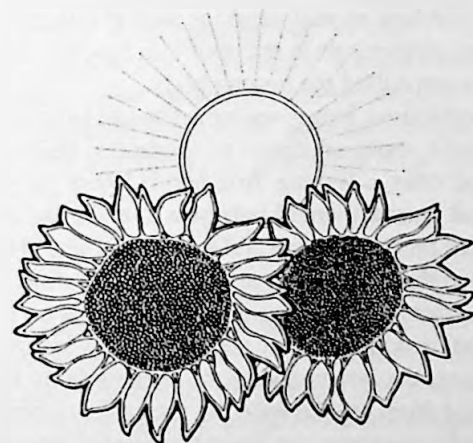
Recommended Reading

1. *Back to Health / A Comprehensive Medical and Nutritional Yeast Control Program.* D.W. Remington, M.D. & B.W. Higa, R.D....; 1986, Vitality House, Provo, Utah.

2. *Candida Albicans.* L. Chaitow, Thorsons Publ., Wel-lingsborough, England, 1985.

3. *The Missing Diagnosis.* C.O. Truss, Birmingham, AL, 1982.

4. *The Yeast Connection.* W.C. Crook, Professional Books, Jackson, Tenn., 1983



What's New In Nutrition

Marian Zazula, M.D.

Recent advances in basic sciences help us to look closely at the function of our body from a bio-chemical point of view. We are able to trace individual nutrients, like vitamins or minerals, and find out what exactly it is that they do in the body. In animal study we can find which function of the body suffers after the withholding of a single nutrient from the diet. We can also find out how nutrients cooperate or work against each other, and how mental stress, as well as our activities or lack of them, plays a part in the optimum functioning of this complex system called the human body.

At the same time, we are seeing a demand from the public to be informed about all forms of therapies, including the more natural ones. Having first-hand, latest information from medical journals would help you to make the decision of what sort of therapy you should seek. This would be more safe and wise than basing it on a friend's opinion or on a newspaper article. You must also deal with the critics of supplementation with vitamins and minerals, who claim that all the nutrients that are needed for adequate body function can be derived from regular food. In fact, after reviewing all of the scientific evidence, the Food Nutritional Board of the National Academy of Science established the recommended minimum Dietary Allowance (RDA), which should be consumed to meet the needs of practically all healthy people. The problem is that defining the "typical healthy" person is difficult, and even among "typically healthy" people there are individual differences that require different approaches

for maintenance of health.

Extensive measurements of all nutrients showed that because of the North American diet and different lifestyles, the general public's consumption of many nutrients is far below the recommendation of the RDA. That is why the two most sensitive systems in the human body, the immune system and the central nervous system are first to suffer from nutritional deficiency. In addition, the limited access to new technology makes it difficult and expensive to objectively assess the nutritional status of a person by means of a laboratory. That is probably why many practitioners base their decisions regarding nutritional supplementation exclusively on the history of the patient.

Today I'm going to describe a few nutrients that are helpful in the treatment of hyperactive children, but their usefulness extends to many other conditions as well. **I would caution anybody about using large amounts of these nutrients without the supervision of a knowledgeable health practitioner.** We should keep in mind that apart from the well recognized psychological aspect of hyperactivity and environmental sensitivity to foods and chemicals, there are several nutrients that have been found to improve the hyperactive child over all. All of these aspects should be handled by specialists in their respective fields.

Tryptophan is an essential amino acid, useful in protein

balance. It is used together with vitamin B6 to form serotonin, a neuro-transmitter which control mood, the obsessive-compulsive reaction, bulimia, depression, and narcolepsy. It can naturally replace the action of Ritalin, which controls mood by the stimulation of serotonin production (American College of Nutrition, June '87). In Canada it can be obtained by prescription only. When combined with anti-depressants it may produce nervousness and gastro-intestinal problems. There is a word of caution for people that are planning on taking larger amounts of this nutrient (over 150mg). In October 1989 there were reported cases of a so-called Eosinophilia Myalgia Syndrome (EMS) in New Mexico, California and New York after taking tryptophan. The syndrome is characterized by increased amounts of white blood cells (over two thousand per mm), called eosinophils, severe muscle and joint pain, swelling of the arms and legs, skin rashes and fever. After stopping tryptophan all symptoms gradually disappeared. In the last six months, out of two thousand EMS cases, there were two deaths reported. (Lancet, November 1989, JAMA 1989).

In Chicago, in December 1989 there was a conference held to deal with the problem. Although they were aware of possible causes of this syndrome, there was no solution to be found. The FDA in the U.S. stopped the sale of tryptophan capsules of 100mg or over. In Canada we have different manufacturers of this product and since there were no cases reported, treatment with tryptophan in Canada was not discontinued.

Taurine is needed in the development of the central nervous system and is used in hyperactive children as well as an anti-convulsive and anti-anxiety substance. It is also needed for vision and should be considered when there is a sudden problem with sight. It needs zinc and manganese for its function. It is excreted in bile and helps in the absorption of fats from the intestines. This helps the person with diarrhoea problems (NutrMD 1989).

Tyrosine and Pheylalanine also help depressed patients because they take part in adrenaline production during times of stress. Due to its helpful effect on so-called "burn-out" patients, it gained the name "stress amino acids". It also helps alleviate patient's symptoms during withdrawal from smoking and abnormal blood pressure.

Glycine has the advantage of a sweet taste. Used with Inositol, it dissolves in water like sugar. It reduces aggressiveness and helps patients with maniac depressive disorder.

Now let's look at an important mineral - **Magnesium**. This wonder mineral has been deficient in 40 to 80 per cent of the North American population, according to a national survey conducted in the U.S. Its relaxing effect on smooth muscles,

of blood vessels and the bronchial trees was known for at least ten years, but recently, its practical application in relieving spasms of bronchi and in hypertension was described in recognized medical journals (JAMA '87, Allergy '87). Many asthma medications and diuretics drive magnesium out of the body. Together with calcium, it helps nerve and muscle function, including the heart muscle, by producing a sedating and relaxing effect. It also relaxes the central nervous system and helps metabolism, sugar, protein, B vitamins, vitamin C and E in the body. One of the most profound protective effects of magnesium is on calcium. Low magnesium produces poor absorption of calcium from intestines as well as blocking re-absorption calcium from the bone which results in a low level of calcium in the blood stream. That translates itself into muscular spasm, tremors, heart palpitations, tetany, low energy, weakness, low temperature, apathy, and confusion, to mention just a few. Whatever calcium is present in the blood stream may end up in the arterial wall producing arterio-sclerotic plugs. Considering that about 80% of our enzymes in the body need magnesium for their function, we should keep it in mind when we consider treatment with supplements. Unfortunately, the ways of finding out magnesium deficiencies in a cell are not accurate and we often have to prescribe magnesium based on a clinical picture.

Indiscriminate use of Magnesium should be avoided. Magnesium helps calcium absorption, but calcium interferes with the absorption of magnesium. Fibre, like bran, should not be taken with magnesium. Fat forms non-soluble salt and should not be taken together.

Calcium, since its absorption and metabolism is clearly related to magnesium should not be considered separately. The need for calcium increases after menopause, and should be supplemented in a ratio of two to one - calcium to magnesium - in a healthy individual. Children sensitive to dairy products have problems getting enough calcium, magnesium and tryptophan. Calcium could be supplemented separately, but tryptophan is present in large amounts in bananas.

Zinc deficiency is relatively common throughout the world. The speeding up of healing wounds and burns, the improvement of fatigue, appetite and tastes, and the improvement of synthesis of protein are just a few of the many benefits of zinc. Together with chromium, magnesium and insulin, it takes part in the control of sugar metabolism in the body.

B vitamins, when deficient, develop a constellation of symptoms, like depression, temper tantrums, poor concentration, anxiety, mood swings, tiredness, listlessness, sleep disturbance, bad dreams, muscular pain and intestinal problems, familiar to ecological patients, which makes one wonder

whether some of the symptoms are not simply a result of intestinal malabsorption of the B vitamins, or of the increased demand for them when patient diet is high in sugar, fat and empty calories. Absorption of vitamins could be impaired. Our orthomolecular friends use these vitamins in high enough doses that they act like drugs and improve many of the above mentioned conditions.

Calcium pantothenate (B5) when used with vitamin C, can also have anti-allergic effect. Pantothenic acid in its active form called Pantethine, has been reported to stimulate liver enzymes responsible for the metabolism of formaldehyde, and other environmental chemicals.

Pyridoxin (B6) with tryptophan, calms the child, affects protein metabolism but must be used with vitamin B2.

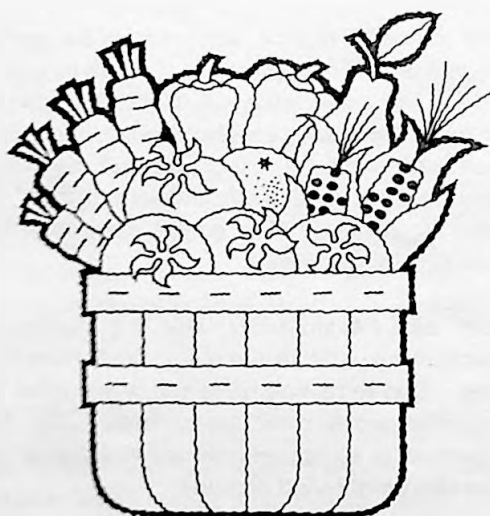
Vitamin C, among hundreds of its effects, works like a sponge that absorbs so-called "free radicals" in the water medium (lymph and blood). Free radicals are highly charged particles, out of control, which are like bullets that can hit and destroy friends (healthy cells), or foes (bacteria or virus) alike. They are present in abundance during an allergic reaction. The mild side effect of large doses of vitamin C are diarrhoea which is a result of the acidity of the substance. Because of that, another preparation called ester polysorbate has been recently found to be better tolerated because of its neutral pH.

Vitamin E is doing the same work, protecting membranes of the cells in the body from free radicals (like a sponge) as vitamin C does in the water medium. We should keep in mind that if the cell becomes diseased, the first part that gets visibly sick is the cellular membrane. It becomes more rigid. That makes it difficult for nutrients to enter the cell and waste product to be discharged from the cell. It is also easier for bacteria and viruses to attack the rigid membrane. Doctor Wilfred Schute claims that hyperactivity, learning disability, and attention deficit disorder, as well as aggressiveness can be slowly but steadily improved with daily supplement of four hundred milligrams of vitamin E, not to mention the beneficial effect on the skin.

Finally I am going to discuss *glutamic acid*. It is a non-essential amino acid, which means that it can be manufactured in the body. It speeds up the healing of ulcers, helps fatigue, decreases craving for alcohol, schizophrenia, craving for sweets, and when it gets into the brain becomes high energy fuel. It is also made into neuro-transmitters (chemicals that nerve cells use to communicate with each other) or detoxifies the brain from toxic ammonia. It has been found that by feeding a person a moderate amount of another related

preparation, L glutamine (waste products to be discharged from the brain), the amount of glutamic acid that crosses the brain membranes increases significantly and helps the brain to survive, improves intelligence and normalizes the behaviour of the child.

Nutritional sciences have been mushrooming in recent years due to extensive research in basic science. Much of the information that you find today might be incomplete next month or next year, but it is important to have a general knowledge, basic information which you can use easily in order to reach and maintain optimum health.



The Ashford Report – Summary

The research underlying this report was supported by the New Jersey State Department of Health. Any opinions, findings, conclusions, or recommendations expressed herein are those of the authors and do not necessarily reflect the views of the New Jersey State Department of Health, The Massachusetts Institute of Technology, or The University of Texas.

INTRODUCTION

Chemical exposures are endemic to our modern industrial society. Increased production/use of organic chemicals and advances in consumer products and building construction have resulted in changes in the nature and extent of human exposure to chemicals. Most patients who believe they are chemically sensitive initially seek medical care and consideration from traditional medical practitioners, many of whom are ill-equipped or reluctant to provide the painstaking and time-consuming attention that is required for their condition. In their attempts to obtain help, these "chemically sensitive" patients find themselves caught up in an acrimonious cross-fire among several different groups of physicians - traditional allergists; clinical ecologists; and in some cases, ear, nose, and throat specialists, occupational physicians, and others. This acrimony is fueled by different medical paradigms of the definition, diagnosis, and treatment of disease or symptoms associated with exposure to low levels of chemicals in food and water, the outdoor

environment, the work environment, indoor air, and consumer products. Legal conflicts further complicate the associated scientific and medical differences. Attempts by "chemically sensitive" persons to obtain workers' compensation, disability payments, and damage awards from employers and from producers and users of chemical products result in an adversary system which draws medical practitioners unwillingly into the center of the conflict. Further exacerbating the situation are the insurance industry and employers who seek to reduce the escalating costs of medical care in general.

This report was commissioned by the New Jersey Department of Health in order to clarify the nature of chemical sensitivity and to identify ways in which a state department of health can assist the chemically sensitive person and disengage the patient from the cross-fire described above and its attendant conflicts. In undertaking this task, we reviewed much of the available scientific and medical literature relating to low-level chemical exposure and resulting disease. We interviewed key individuals in various medical disciplines including allergy, clinical ecology, and occupational medicine. Physicians involved with the chemically sensitive patient are concerned about being drawn into a legal and political struggle that ultimately may not help the patient. Through our interviews we were able to identify not only areas of conflict between the allergists and clinical ecologists, but also unexpected areas of common ground.

We are at a critical crossroads. There is at this time a

small window of opportunity which may be closed if we do not take action to address the problems of the chemically sensitive individual in a caring and equitable way. The recommendations made in this report result from our interviews, literature review, and examination of the issues, and we suggest that their adoption is necessary for making substantial progress in this area.

The reader is cautioned that this executive summary is not an adequate substitute for the entire report. The subject is complex and requires more explication than a brief summary can provide. Below we present essential material excerpted from the various sections of the full report.

SENSITIVE POPULATIONS AND LOW-LEVEL EXPOSURES TO CHEMICALS

A review of the literature on exposure to low levels of chemicals reveals four groups or clusters of people who may be chemically sensitive:

1. Industrial workers
2. Occupants of "tight buildings," including office workers and school children
3. Residents of communities whose air or water is contaminated by chemicals
4. Individuals who have had personal and unique exposures to various chemicals in domestic indoor air, pesticides, drugs, consumer products, etc.

While these groups differ in professional and educational attainment, age and sex, and the mix and levels of chemicals to which they are exposed, all have multiple symptoms involving multiple organ systems with marked variability in type and degree of those symptoms. Symptoms are often "subjective." For example, central nervous system (CNS) symptoms such as difficulty concentrating or irritability are common and physical examinations are frequently unremarkable for individuals in each category. Careful analysis of these groups may reveal differences that can illuminate the etiologies and suggest effective therapeutic options for the myriad problems comprising chemical sensitivity. These differences also may create a referral or selection bias such that members of the four groups present themselves preferentially to different medical practitioners, e.g., some may consult occupational health physicians, others primary care physicians, and still others clinical ecologists or allergists.

Symptoms experienced by people in tight buildings, by industrial workers in a particular workplace, or by the residents of a contaminated community occur within a relatively

short time period - perhaps within weeks or months. These symptoms may occur after a recognized event, such as the installation of new carpeting, relocation to a new workplace, or changes in workplace or community exposures. The "temporal cohesiveness" of exposures and symptoms can contribute to the recognition of the problem as real. Acceptance of chemical sensitivity as *bona fide* physical disease may also be facilitated by the recognition that it is widespread in nature and is not limited to what some observers would describe as malingering workers, hysterical housewives, and workers experiencing mass psychogenic illness. We are struck by the fact that individuals in such demographically divergent groups as industrial workers, office workers, housewives, and children, report similar polysymptomatic complaints triggered by chemical exposures.

Patients suffering from multiple chemical sensitivities may be exhibiting a non-classical and non-atopic (i.e., non-allergic) type of sensitivity. Their health problems often (but perhaps not always) appear to originate with some acute or traumatic exposure, after which the triggering of symptoms and observed sensitivities occur at very low levels of chemical exposure. The inducing chemical or substance may or may not be the same as the substances that thereafter provoke or "trigger" responses. (Sometimes the inducing substance is described as "sensitizing" the individual, and the affected person is called a "sensitized" person.) Reactions may sometimes be observed at incitant levels similar to those to which classically sensitive and atopic patients respond. However, unlike classical toxicity, the effects of low-level exposures are not simply those effects observed in normal populations at higher doses. The fact that normal persons, e.g., most doctors, do not experience even at high levels of exposure those symptoms that chemically sensitive patients allege they have at much lower levels of exposure probably helps explain the reluctance of some physicians to believe the problems are physical in nature. [While this also describes atopy (allergy), here the sensitivity is not IgE mediated.] To compound the problem of physician acceptance of this illness, multiple organsystems may be affected and multiple substances may trigger the effects. Over time, there seems to be a spreading of sensitivities, both in terms of the types of triggering substances and the systems affected. Avoidance of the offending substances is usually effective, but much more difficult to achieve for these patients than for classically sensitive patients, since the problems may occur at extremely low doses and the exposures may be ubiquitous. Adaptation to chronic low-level exposure with consequent "masking" of symptoms may make it exceedingly difficult to discover these sensitivities and unravel the multifactorial triggering of symptoms.

The fact that sensitivity means something quite different to toxicologists, allergists, and clinical ecologists reflects the

different disease paradigms under which each operates. Neither traditional allergists nor toxicologists fully appreciate the two step process, induction and triggers, that seems to characterize multiple chemical sensitivities.

Those clinical ecologists who reference the literature on classical chemical toxicity to buttress their case for chemical sensitivity may be adding to the confusion and may be contributing to the reluctance of others to accept their ideas. Likewise, allergists who dismiss chemical sensitivity on the grounds that it is not consistent with the IgE-mediated sensitivity they know best may be overlooking another kind of sensitivity in their patients. While chemicals may act in some manner to predispose or cause the body to be reactive to subsequent low-level chemical exposures, this latter effect, i.e. hyper-reactivity to low levels of chemically diverse and unrelated substances, is not toxicity as classically defined or understood at this time.

The Ashford Report

Available from:
National Centre for Environmental Health Strategies
Attn: Mary Lamielle
1100 Rural Avenue
Voorhees, N.J.
08043

Cost: \$15.00 U.S.



Nicholas A. Ashford is Associate Professor Technology and Policy at the Massachusetts Institute of Technology. He holds both a Ph.D. in Chemistry and a Law Degree from the University of Chicago, where he received graduate training in Economics. Dr. Ashford is the author of a major work for the Ford Foundation, *Crisis in the Workplace: Occupational Disease and Injury*, published by the MIT Press. For several years he was a public member and chairman of the National Advisory Committee on Occupational Safety and Health, and also served on the EPA Science Advisory Board. Dr. Ashford is a fellow of the American Association for the Advancement of Science, and is currently a member of the Governing Council of the American Public Health Association.

Claudia S. Miller is a fellow in Allergy and Immunology at the University of Texas Health Science Center at San Antonio. She is board-certified in Internal Medicine and earned a Master's Degree in Environmental Health from the School of Public Health at the University of California, Berkeley. Prior to her medical training she served as an industrial hygienist for the University of California, San Francisco and for the United Steelworkers of America, and as an instructor at OSHA's national training institute in Chicago. She testified in the OSHA hearings on lead and coke oven emissions, and was appointed to the National Advisory Committee on Occupational Safety and Health. In 1979, after being asked to investigate some outbreaks of "mass psychogenic illness" among electronics assembly workers, she proposed that low-level chemical exposures, rather than psychological factors might be responsible for their symptoms. Dr. Miller's interest in the health effects of low-level chemical exposure continues as a physician in Allergy and Immunology.

Nontoxic and Natural

by Debra Lynn Dadd

Since World War II, hundreds of synthetic "miracle" fibres have been developed and are now in popular use. Although little scientific evidence exists to conclusively prove these fibres themselves are harmful, chemicals such as toxic phenol, carcinogenic vinyl chloride, and other harmful plastics that are used to make them may be absorbed by the skin.

In addition to their potentially toxic effects, plastic fibres are not very comfortable. As a group, none absorb moisture very well, making you uncomfortably hot, sticky, and clammy in warm weather, providing an ideal environment for bacteria growth.

Plastic fibres are also difficult to clean because they do tend to absorb oil from the skin and hold oily stains that can effectively be removed only with specially developed detergents (which also pollute and cause health problems).

"Static-eling" is another problem unique to synthetic fibres, caused by an electric charge created by the friction of the synthetic fibre against the body. To solve this problem, even more synthetic chemicals are used in fabric softeners and antistatic agents.

Many textile products are treated with formaldehyde. Even if not stated on the label, all polyester/cotton blend fabrics have formaldehyde finishes. Polyester/cotton bedsheets have a particularly heavy finish because of their continuous use and frequent laundering. Formaldehyde is also used on nylon fabrics to make them flame proof. Some

pure cotton fabrics have been treated with formaldehyde finishes for easy care. Even though it is not required by law, clothing labels will usually reveal a finish that makes them "crease resistant", "permanent pressed", "durable pressed", "no-iron", "shrink proof", "water repellent", "waterproof", or "permanently pleated", since these are qualities considered desirable to the consumer. These finishes combine formaldehyde resin directly with the fibre, making the formaldehyde irremovable. At the end of processing, new textile products often contain free formaldehyde levels of 800 ppm to 1000 ppm, but formaldehyde continues to be released as the resin breaks down during washing, ironing, and wear.

Flame retardants are another problem, especially since most polyester fibres are treated with them. Even though the carcinogenic TRIS, a leading flame retardant, was banned by the U.S. Consumer Product Safety Commission (CPSC) in children's sleepwear, it is still legally used in adult sleepwear, hospital gowns, industrial uniforms, wigs, and other textile products we use daily.

Safe Alternatives

Use natural fibres and stuffing/insulation materials — cotton, silk, linen, all the various types of wool, down, feathers, kapok (a fibre taken from the seed pod of the tropical kapok, or silk-cotton tree), and natural-fibre blends: cotton/silk, linen/cotton, and wool/cotton (commonly known as

Viyella). With the exception of the use of pesticides during growing periods, very few chemicals are used in the processing of natural fibres. Unlike synthetic fibres, where the only way to get rid of all the petrochemicals is to destroy the fibre itself, the finishes and dyes used in the processing of natural fibres can either be avoided or effectively removed.

Textiles: formaldehyde; phenol; plastics (acrylonitrile, nylon, polyester, polyethylene, polyurethane, polyvinylchloride/vinyl chloride).

Fabric Softeners: aerosol propellants, ammonia; colours, fragrance and glycerin. "Caution: Keep out of reach of children."

Fabric softeners are designed to reduce static cling in synthetic fabrics and are unnecessary with natural-fibre fabrics. If you must use a fabric softener, choose an unscented brand from your supermarket.

C-rated (Use With Caution) Bounce Unscented: made from unidentified "nonionic and cationic fabric softening agents" and "aluminosilicates impregnated in a rayon cloth".

Do It Yourself: To make a natural-fibre fabric softener, pour 1 cup white vinegar or 1/4 cup baking soda into the final rinse-water to remove any scum left from natural soap.

Laundry Agents: Ammonia, detergents, dyes (fluorescent brighteners), EDTA, ethanol, fragrance, isopropyl alcohol, naphthalene, phenol. "Caution: May be harmful if swallowed", "Warning: Harmful if swallowed, irritating to eyes and skin. Keep out of reach of children". Some detergents with similar formulas have no warning on the label.

Detergents were designed to clean synthetic fabrics. Natural fibres can be cleaned quite adequately with natural substances.

There Are Safe Alternatives

Cotton and Linen: Use borax, baking soda, washing soda, or a natural soap. Although most acids destroy fibre, vinegar (Acetic Acid) can be used with no harmful effect. A drop or two of vinegar in the laundry can help prevent colours from fading. Wash colours separately.

Mildew grows easily on cotton fibres, especially if they are stored under dark and damp conditions. The fungus stains the fibre and eventually causes it to rot. To prevent mildew, which starts its growth on soiled spots, keep clothing clean. Air clothes after wearing to allow any perspiration to dry, or wear clothes only once before laundering. Using borax with the laundry soap will help retard the formation of mildew. Leaving a light on in the closet can provide warmth to keep clothes dry and will inhibit mold growth even in wet weather.

Silk: Hand wash in very cold water with a mild or castile soap, swishing the fabric around for a few minutes and allowing the water to soak into the fabric. Do not rub. Rinse with cold water and gently remove excess water by rolling the fabric in a towel. Do not wring. Dry away from

direct sunlight until damp, then press on the wrong side with a dry iron. A few drops of vinegar will help keep colours from fading without harming the fabric. White vinegar used in the final rinse will also help keep white silks white. Wash colours separately.

Wool: Hand wash or delicately machine wash in lukewarm water (to prevent shrinkage) with mild soaps or diluted vinegar. Sweaters and knits should be reshaped to their original size while damp. Do not use baking soda, as wool is quickly damaged by alkali. Dry cleaning of wool garments is not recommended because of solvents used, and because mothproofing treatment may be applied.

Do It Yourself for regular Fabrics: Use soap. If you live in a hard-water area, you may need a water softener to help dissolve the soap properly. To find out if you need a water softener, put two cups of warm tap water into a quart jar, add a teaspoon of powdered soap flakes or liquid soap, and shake hard. If you get lots of suds that last for several minutes, you don't need to add anything. If you don't get any suds, use safe alternatives to fragrant commercial brands of water softeners: sodium carbonate, washing soda, or borax. When adding soap flakes to a wash of warm or cold water, dissolve the soap flakes in hot water first, and then add. Use baking soda. Use borax. Use washing soda. Use white vinegar. Use 1 tablespoon TSP per washer-load of clothes.

Fabrics may contain dyes, formaldehyde, pesticide (mothproofing), and/or plastics (acrylic, nylon, polyester, PVC/vinyl chloride, spandex). Wash all fabrics before use to remove any excess dyes or finishes.

[**NONTOXIC & NATURAL**, A Guide For Consumers, by **BARBARA LYNN DADD**, tells you how to avoid dangerous everyday products and buy or make safe ones. It includes over 1200 brand name items rated for nontoxicity, including additive-free foods, unscented cosmetics, odourless office supplies, formaldehyde-free building materials, effective air and water filters, natural fibre items, safe cleaning products, nonpoisonous pesticides, and much, much more. Published by **JEREMY P. TARCHER, INC.**, it is readily available in paperback.]

The preceding article was excerpted with permission especially for our many new members.

book review

The Yeast Connection Cookbook:

A Guide To Good Nutrition & Better Health.

by William G. Crook, M.D., and Marjorie Hurt Jones R.N.

Dr Crook is a leading expert in yeast related illnesses, and Marjorie Hurt Jones, R.N., is editor of *Mastering Your Food Allergies*. The *Yeast Connection Cookbook* is a winner not only for those battling candida and food allergies, but for anyone who is interested in healthier eating. The book is written in an easy-to-understand style covering such topics as health problems related to yeast; the best food choices for candida and food allergy sufferers and what to avoid; the chemical problem; the rotation diet; and much more. Dr. Crook has given all the clear, concise updated information necessary to begin and maintain the diet changes needed to recover from yeast related illness.

There is a section of recipes by Marjorie Hurt Jones using innovative substitutions of ingredients adapting recipes in all categories. She provides us with a wealth of knowledge about non-grain alternatives in cooking, as well as helpful hints for their storage. This book is a combo of good reading and good eating.

By Pam Beadle

hints & ideas

From The Human Ecologist.

Spring 1990 Issue.

In most cases, 100% cotton clothing contains traces of formaldehyde, which remains in the material indefinitely. *Washing will not remove it.* Polyester goods are filled with chemicals, including hydrocarbons, which can cause various symptoms, including skin irritation and swelling of the respiratory tract.

Kits for testing formaldehyde in fabrics are available from Sherry Rogers, M.D., 2800 West Genessee Street, Syracuse, NY 13219

I have found if you carry a small bottle of water in your pocket when shopping for cotton, and put a drop of water on the fabric – if it does not dissolve into the fabric immediately, there are chemicals in the cotton.

Informative Booklets to Read

“Moisture And Air” – A booklet intended to help you find some typical signs of moisture and air quality problems in your house. Available from CMHC Public Affairs Centre, 682 Montreal Rd., Ottawa, Ontario K1A 0P7

“What Can We Do For Our Environment?” A simple to use guide offering hundreds of tips and suggestions on environmentally friendly habits to practice every day. Available free from Environment Canada's Inquiry Centre, 351 St. Joseph Blvd., Hull, Quebec K1A 0H3 (819) 997-2800

THE ALLERGY AND ENVIRONMENTAL HEALTH ASSOCIATION

Do you recall the story of the coal miners and the canaries? Coal miners would descend into the unknown darkness of the mine with a canary as a monitor. If and when the canary faltered and died from exposure to lethal gas, the miners knew it was time to retreat and reassess the passage. The members of The Allergy and Environmental Health Association are part of a similar story in today's chemical society. Like the canaries, we're faltering.

We are living in a time when the use of chemicals pervades our food, air, and water. Many people have difficulty adapting to common exposures in everyday living. We are known as the environmentally sensitive. Exposures to chemicals found in our food, air and water may trigger chronic or acute reactions that last for days, or months, or years. Food additives, pesticide spray and cleaning products are a few things that can cause severe reactions in the health of the environmentally sensitive. Health problems known to have an environmental source include some respiratory ailments, stomach problems, headaches, and mood swings.

You might be affected too. Environmental sensitivities can affect anyone, at any time. You can help the thousands of environmentally sensitive, and in the process help yourself, by becoming more informed on the effects of environmental factors on human health.

HAMILTON-BURLINGTON BRANCH
356 Rankin Drive
Burlington, Ontario. L7N 2B4

KITCHENER BRANCH
11 Calais Place
Kitchener, Ontario. N2M 5M1

LONDON BRANCH
1509 Rushland Avenue
London, Ontario. N5V 1X6

OTTAWA BRANCH
P.O. Box 11428, Station H
Nepean, Ontario. K2H 7V1

QUINTE BRANCH
P.O. Box 188
Stirling, Ontario. K0K 3E0

TORONTO BRANCH
P.O.Box 2311, Station C.
Downsview, Ontario. M3N 2V8

WATERLOO-WELLINGTON BRANCH
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P.O. Box 8212, Station A.
Halifax, Nova Scotia. B3K 5L9

NEW BRUNSWICK BRANCH
P.O. Box 4073
Dieppe, New Brunswick. E1A 6E7

PRINCE EDWARD ISLAND BRANCH
P.O. Box 2656
Sherwood, P.E.I. C1A 8C3

MEMBERSHIP APPLICATION
(including subscription to the Quarterly)

PLEASE PRINT:

NAME: _____

ADDRESS: _____

POSTAL CODE: _____ BRANCH: _____

TELEPHONE: _____

I have enclosed a cheque or money for the amount of \$20, payable to the
ALLERGY and ENVIRONMENTAL HEALTH ASSOCIATION, to cover the membership fees for one year. Also
enclosed is a donation of \$_____ (optional). Charitable donations are tax deductible.

MEMBERSHIP RENEWAL NOTICE

It was decided by your representatives at the Annual General Meeting of the Allergy and Environmental Health Association to have all memberships renew annually, on the first day of the joining (or renewing) month, e.g. join in August, renew in August.

TIME TO RENEW !! DON'T MISS THE SEPTEMBER ISSUE

CHECK YOUR LABEL DATE

9006, 9007, 9008, 9009

- If your label date matches the date above, it's time to renew.
- Membership fees increase to \$25 on September 1, 1990.
Beat the increase.
- Send a \$20 cheque or money order, payable to the:
Allergy and Environmental Health Association
to: 10 George St. N., Cambridge, Ontario. N1S 2M7
- Your branch receives their portion of your fee, once the main accounting has been completed

If undelivered, please return to:
The Allergy and Environmental Health Association
10 George St., N., Cambridge, Ontario. N1S 2M7

9009 Ottawa
Johanne Falardeau
6267 Castille Court
Orleans Ontario
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